REMARKS

Applicants wish to thank Examiner Cheung for the courtesy extended during a personal interview on August 16, 2004 at the U.S. Patent and Trademark Office, with Applicant's representatives. The remarks contained herein substantially reflect those discussed at the interview.

Claims 1-15 are pending in this application.

Applicant's independent claim 1 is directed toward a process for producing a resin in the presence of a chromium and titanium-based catalyst, wherein the catalyst is activated by (a) contacting said catalyst in a reactor at a temperature of between about 370-540°C (700-1000°F) with an atmosphere consisting essentially of an inert gas; and then (b) introducing an oxidant into said reactor so that the temperature of said reactor does not exceed about 510°C (950°F); and then (c) completing the activation of said catalyst in a reactor at a temperature of about 548-638°C (1020-1180°F) under an oxidizing atmosphere.

Applicants submit their independent claim 1 requires at least three discrete and sequential steps. Applicants believe that during the interview the Examiner agreed that the recitation of the phrase 'and then' means that to practice the claimed invention one must sequentially perform each of the steps (a)-(c) i.e., to practice Applicants claimed invention one must affirmatively do step (a) for some discrete time period, then one must affirmatively do step (b) for some discrete time period, and finally one must affirmatively do step (c) for some discrete time period. The specification and claims are directed to one of ordinary skill in the art.

Accordingly, Applicants respectfully assert that the recitation of a time range for each of steps (a)-(c) is not necessary because one of ordinary skill would understand that the time must be sufficient to ensure the completion of each of steps (a)-(c). In

other words, Applicants believe it is clear that step (a) should be conducted for as long or as short as necessary to contact the catalyst in a reactor with an atmosphere consisting essentially of an inert gas at a temperature of between about 307-540°C. In Example 1 this time period was about 3.5 hours. Applicants believe it is clear that step (b) should be conducted for as long or as short as necessary to introduce an oxidant into the reactor such that the reactor temperature does not exceed about 510°C. In Example 1 this time period was about 90 minutes. Applicants believe it is clear that step (c) should be conducted for as long or as short as necessary to complete the activation of the catalyst under an oxidizing atmosphere such that the reactor temperature is about 548-638°C. In Example 1 this time period was about 6 hours.

Accordingly, Applicants submit that the length of time necessary to complete steps (a)-(c) will be dictated by a motivation to keep the temperature of the reactor within the disclosed ranges, and that a recitation of time within each step (a)-(c) is not necessary. Moreover, Applicants submit that to practice their claimed invention one must sequentially perform each of the steps (a)-(c).

For the reasons above, Applicants respectfully request that the rejection to claims 1-6 under 35 U.S.C. § 112, second paragraph be withdrawn. Moreover, Applicants respectfully assert these claims are in condition for allowance.

Applicants respectfully remind the Examiner of his acknowledgement during the interview that the Office Action mailed on June 17, 2004 did not address claims 7-15. Applicants respectfully submit claims 7-10, which are dependent upon claim 1, are allowable for the above-cited reasons.

Claim 11 is directed toward a resin suitable for use as extruded pipe comprising the residue of a chromium and titanium-based catalyst activated by the above described process. Applicants submit that the activation process of claim 11 results in the production of a novel and non-obvious catalyst. Therefore, Applicants respectfully

assert the resin itself is novel and non-obvious because claim 11 incorporates the residue of the aforementioned catalyst. Moreover, Applicants respectfully assert claims 12-15 are in condition for allowance as they further depend from claim 11.

Applicants additionally remind the Examiner that the issue of nonstatutory-type double patenting was raised during the interview. The Examiner suggested that while further investigation was required there might be a need terminally disclaim the present application 10/784,965 with pending application 10/784,460. Applicants take this opportunity to proactively address this issue and assert that, "nonstatutory-type double patenting rejections are based on a judicially created doctrine grounded in public policy and which is primarily intended to prevent prolongation of the patent term by prohibiting claims in a second patent not patentably distinguishing from the claim in a first patent (M.P.E.P. § 804)."

In this light, Applicants assert the rejection on the basis of nonstatutory-type double patenting is improper because 1) the two claim sets are not obvious in light of each other and 2) the issuance of these applications as independent patents will not prolong their respective patent term.

The two claim sets are not obvious in light of each other because one is directed toward a process for producing a resin suitable for use as extruded pipe, '965, and the other is directed toward a process for producing a resin suitable for use as a utility conduit, '460. The claims differ in the recitation of step (c). '965 teaches to complete the activation of the catalyst in a reactor at a temperature of about 548-638°C under an oxidizing atmosphere. In contrast, '460 teaches to complete the activation of the catalyst in a reactor at a temperature of about 605-695°C under an oxidizing atmosphere. There are significant differences between the physically properties and commercial demands of a utility conduit and an extruded pipe, namely, the utility conduit has a higher melt index, a lower molecular weight, and a greater need for processability. While it was known that the end temperature at which a catalyst was

activated dictates the properties of the resin produced there is nothing in the prior art to suggest the catalyst activated by Applicant's claimed method would work to improve resins intended for use as an extruded pipe and a utility conduit. Applicants submit that absent experimentation there was no suggestion or motivation that the disclosed process was compatible for use in the extruded pipe art and the utility conduit art.

The issuance of these applications as independent patent will not prolong their respective patent term because these applications were filed with the United States Patent and Trademark Office on the same day (February 23, 2004). Therefore, under the new rule their patent terms are set to expire "20 years from the date on which the application was filed in the United States" 35 U.S.C. 154(a)(2). For the above reasons, Applicants respectfully submit that the non-obviousness type rejection is rendered moot.

Applicants respectfully submit that the presently pending claims are in condition for allowance and favorable action thereon is respectfully requested.

Respectfully submitted,

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Andrew B. Griffis
Attorney for Applicants
Registration No. 36,336

ExxonMobil Chemical Company
Law Technology
P.O. Box 2149
Baytown, Texas 77522-2149
(281) 834-1886 (Voice)
(281) 834-2495 (Fax)